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EXAMINER

BEISNER, WILLIAM H

ART UNIT PAPER NUMBER

1744

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/825,883

Applicant(s)

QIU, JEAN

Examiner

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 14-19 and 21-29 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-19 and 21-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/4/06.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group III, Claims 14-20, in the reply filed on 12/08/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 1-9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/8/05.

Information Disclosure Statement

3. The information disclosure statement filed Aug. 4, 2006 has been considered and made of record.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 28 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Weiner (DE 19952139).

With respect to claim 28, the reference of Weiner discloses a device that includes a micropatterned embedded plastic film (7) having a plurality of regions formed by contrast features (8) each region has a unique identifier (See Figure 4). Note, the film is capable of being attached to a supporting component. Statements of intended use carry no patentable weight in apparatus-type claims.

With respect to claim 29, the device includes a clear plastic layer (7) and a base layer (3) wherein the plastic layer (7) includes the contrast features and unique identifiers (8) (See Figure 4).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 14, 16, 19, 21, 22, 25, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwaki Glass (JP 2001-17157) in view of Koezuka et al.(US 5,712,161).

The reference of Iwaki Glass discloses a device for growth, identification and measurement of cells that includes an optical film (17) having a plurality of regions formed by contrast features, each of the regions having a unique identifier and each of the contract features observable during microscopic viewing. The device also includes a supporting component (14,15) bonded to the optical film (17) to form a volume for holding a liquid having the cells.

While the reference of Iwaki Glass employs a glass optical film (17), claims 14 and 28 differ by reciting that the optical film is a “plastic” optical film.

The reference of Koezuka et al. discloses that when culturing and optically observing cell cultures, it is conventional in the art to employ either a glass or plastic cover slip (film) (See column 6, line 58, to column 7, line 2, and column 9, line 30).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to employ a plastic optical film rather than glass for the known and expected result of providing an alternative means recognized in the art to achieve the same result, providing a cell culture surface that is optically transparent wherein the cultured cells can be visually observed using a microscope.

With respect to claims 16 and 27, the film (17) is attached to the support component (14,15) using an adhesive (See paragraph [0020] of the English language translation).

With respect to claims 19 and 25, the reference of Iwaki Glass discloses that the support component (22) can define a plurality of wells (See Figure 5).

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With respect to claims 21 and 22, the reference of Iwaki Glass disclose that the contrast features (19) are formed using a laser or etching (See paragraph [0021] of the English language translation). As a result, the contrast features would have a depth and/or a height since material is removed during etching.

9. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwaki Glass (JP 2001-17157) and Koezuka et al.(US 5,712,161) further in view of Barbera-Guillem et al.(US 2002/0072113).

The combination of the references of Iwaki Glass and Koezuka et al. has been discussed above.

With respect to claims 17 and 18, while the reference of Iwaki Glass discloses the use of an adhesive, the reference is silent as to the specific type of adhesive employed.

The reference of Barbera-Guillem et al. discloses that the use of a variety of adhesives is known in the art when attaching a film to a substrate within an optical observation device (See paragraph [0029] and [0031]).

In view of this teaching, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art to determine the optimum adhesive to employ based on design considerations such as the intended use and/or specific materials of construction while maintaining the efficiency of the device.

10. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwaki Glass (JP 2001-17157) and Koezuka et al.(US 5,712,161) further in view of Peters (DE 3732142).

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The combination of the references of Iwaki Glass and Koezuka et al. has been discussed above.

Claim 27 differs by reciting that the supporting component is provided and/or constructed using a material deposition technique.

The reference of Peters discloses that it is conventional in the art to provide a culture surface with a plurality of assay locations using a material deposition technique (See the English language abstract and Figures 1-3).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the plurality of assay locations of the modified primary reference using the material deposition method disclosed by the reference of Peters for the known and expected result of providing an alternative means recognized in the art for forming a plurality of assay locations on a culture substrate.

11. Claims 14-16, 19, 21, 22, 25 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwaki Glass (JP 2001-17157) further in view of Weiner (DE 19952139).

The reference of Iwaki Glass discloses a device for growth, identification and measurement of cells that includes an optical film (17) having a plurality of regions formed by contrast features, each of the regions having a unique identifier and each of the contrast features observable during microscopic viewing. The device also includes a supporting component (14,15) bonded to the optical film (17) to form a volume for holding a liquid having the cells.

While the reference of Iwaki Glass employs a glass optical film (17), claims 14 and 28 differ by reciting that the optical film is a "plastic" optical film.

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The reference of Weiner discloses that it is known in the art to provide contrast features as required of the reference of Iwaki Glass using a separate substrate that includes the contrast features. The reference of Weiner discloses that optical plastic film (7) is attached to substrate (3) to provide contrast features on substrate (3).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the contrast features required of the primary reference using a separate optical film (7) as taught by the reference of Weiner for the known and expected result of providing an alternative means recognized in the art for providing a reference grid used during the culture of cells while providing reduced manufacturing costs.

With respect to claims 15 and 29, the combination of the optical film (7) of Weiner positioned on the optical film (17) of Iwaki Glass would provide a base film (17) with a separate plastic optical film (7).

With respect to claims 16 and 27, the film (17) is attached to the support component (14,15) using an adhesive (See paragraph [0020] of the English language translation).

With respect to claims 19 and 25, the reference of Iwaki Glass discloses that the support component (22) can define a plurality of wells (See Figure 5).

With respect to claims 21 and 22, a printed grid would provide contrast features including areas with depths and/or heights.

12. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable Iwaki Glass (JP 2001-17157) and Weiner (DE 19952139) further in view of Barbera-Guillem et al.(US 2002/0072113).

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The combination of the references of Iwaki Glass and Weiner has been discussed above.

With respect to claims 17 and 18, while the reference of Iwaki Glass discloses the use of an adhesive, the reference is silent as to the specific type of adhesive employed.

The reference of Barbera-Guillem et al. discloses that the use of a variety of adhesives is known in the art when attaching a film to a substrate within an optical observation device (See paragraph [0029] and [0031]).

In view of this teaching, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art to determine the optimum adhesive to employ based on design considerations such as the intended use and/or specific materials of construction while maintaining the efficiency of the device.

13. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwaki Glass (JP 2001-17157) and Weiner (DE 19952139) further in view of Peters (DE 3732142).

The combination of the references of Iwaki Glass and Weiner has been discussed above.

Claim 27 differs by reciting that the supporting component is provided and/or constructed using a material deposition technique.

The reference of Peters discloses that it is conventional in the art to provide a culture surface with a plurality of assay locations using a material deposition technique (See the English language abstract and Figures 1-3).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the plurality of assay locations of the modified primary reference using the material deposition method disclosed by the reference of Peters for the known and expected result of

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providing an alternative means recognized in the art for forming a plurality of assay locations on a culture substrate.

14. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwaki Glass (JP 2001-17157) and Weiner (DE 19952139) further in view of Koezuka et al.(US 5,712,161).

The combination of the references of Iwaki Glass and Weiner has been discussed above.

While the reference of Iwaki Glass discloses that the base film (17) is made of glass, claims 23 and 24 differ by reciting that the base film is made of plastic.

The reference of Koezuka et al. discloses that when culturing and optically observing cell cultures, it is conventional in the art to employ either a glass or plastic cover slip (film) (See column 6, line 58, to column 7, line 2, and column 9, line 30).

The reference of Weiner discloses that optical film (7) can be used with a carrier (3) that is made of glass or plastic (See English language translation).

In view of these teachings, it would have been obvious to one of ordinary skill in the art to employ a plastic optical film rather than glass for the known and expected result of providing an alternative means recognized in the art to achieve the same result, providing a cell culture surface that is optically transparent wherein the cultured cells can be visually observed using a microscope.

Response to Arguments

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15. With respect to the rejection of Claims 15-18 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, this rejection has been withdrawn in view of Applicant's amendments to the claims and related comments (See pages 6-7 of the response filed 8/8/2006).

16. With respect to the rejection of Claims 14, 16, 21 and 22 under 35 U.S.C. 102(b) as being anticipated by Weiner (DE 19952139), this rejection has been withdrawn in view of Applicant's amendments to the claims and related comments (See pages 7-8 of the response filed 8/8/2006). Note new grounds of rejection have been made in view of the combination of Iwaki Glass with either Koezuka et al.(US 5,712,161) or Weiner (DE 19952139). Also note that new claims 28 and 29 are anticipated by the reference of Weiner.

17. With respect to the rejection of Claims 15, 17-19, 21 and 22 under 35 U.S.C. 103(a) as being unpatentable over Weiner (DE 19952139) in view of Lorinez (US 5,812,312), Barbera-Guillem et al.(US 2002/0072113), Mitchell (US 4,997,266), Iwaki Glass (JP 2001/017157), or Uchida et al.(JP 11/075819), this rejection has been withdrawn in view of Applicant's amendments to the claims and related comments (See pages 8-9 of the response filed 8/8/2006). Note new grounds of rejection have been made in view of the combination of Iwaki Glass with either Koezuka et al.(US 5,712,161) or Weiner (DE 19952139).

Conclusion

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18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys J. Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William H. Beisner
Primary Examiner
Art Unit 1744

WHB